

Message

**From:** Dan Berlin [dberlin@anchoragea.com]  
**Sent:** 2/12/2020 2:56:43 PM  
**To:** Hoffman, Erika [Hoffman.Erika@epa.gov]; Sanga, Ravi [Sanga.Ravi@epa.gov]  
**CC:** Sloan, Jon [Sloan.J@portseattle.org]; Brick Spangler [Spangler.B@portseattle.org]; Delaney Peterson [dpeterson@anchoragea.com]  
**Subject:** T25 Sediment Characterization - Tier 4 analysis  
**Attachments:** T25-SedTier4Triggers\_01.31.2020.xlsx; AQ\_PoS\_SD01\_T25\_ActualSampling\_201903.pdf; T25\_Final\_SedimentInclTrig20200212.xlsx  
**Flag:** Follow up

Erika and Ravi,

Attached are the validated results from the Tier 3 testing at T25 and a table summarizing recommended Tier 4 testing. The results table contains all validated results, and samples shaded grey contain the newest Tier 3 results (with a note describing what was tested in each column).

We are recommending one additional analysis in core SC-08 to confirm the bottom of contamination. We have tested the bottom-most interval or confirmed clean intervals in all other cores. We are planning to trigger this sample and don't believe further discussion with EPA is needed, but let us know if you would like to discuss further.

Thanks  
Dan

**Dan Berlin, PWS**  
Principal

ANCHOR QEA, LLC

**From:** Hoffman, Erika <Hoffman.Erika@epa.gov>  
**Sent:** Tuesday, November 12, 2019 4:45 PM  
**To:** Joy Dunay <jdunay@anchorqea.com>; Sanga, Ravi <Sanga.Ravi@epa.gov>; Brick Spangler <Spangler.B@portseattle.org>  
**Cc:** Dan Berlin <dberlin@anchorqea.com>; Sloan, Jon <Sloan.J@portseattle.org>  
**Subject:** RE: T25 Sediment Characterization - EPA comments on Tier 3 analysis

Thanks Joy.

Ravi - I looked over the revised excel tables and all looks good w/r to modifications responsive to my comments.

Thanks!

Erika

[illegible]

Erika Hoffman | Biologist | U.S. Environmental Protection Agency Washington Operations  
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**From:** Joy Dunay <[jdunay@anchoragea.com](mailto:jdunay@anchoragea.com)>  
**Sent:** Tuesday, November 12, 2019 3:47 PM  
**To:** Sanga, Ravi <[Sanga.Ravi@epa.gov](mailto:Sanga.Ravi@epa.gov)>; Brick Spangler <[Spangler.B@portseattle.org](mailto:Spangler.B@portseattle.org)>

**Cc:** [dberlin@anchoragea.com](mailto:dberlin@anchoragea.com); Hoffman, Erika <[Hoffman.Erika@epa.gov](mailto:Hoffman.Erika@epa.gov)>; Sloan, Jon <[Sloan.J@portseattle.org](mailto:Sloan.J@portseattle.org)>  
**Subject:** RE: T25 Sediment Characterization - EPA comments on Tier 3 analysis

Hi Ravi,  
Please see below for responses to EPA's comments.  
Samples were triggered for analysis and should be finalized in 7-8 weeks.

Thank you,

**Joy Dunay**  
Environmental Scientist  
206.903.3320

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**From:** Sanga, Ravi <[Sanga.Ravi@epa.gov](mailto:Sanga.Ravi@epa.gov)>  
**Sent:** Thursday, November 7, 2019 4:16 PM  
**To:** Joy Dunay <[jdunay@anchoragea.com](mailto:jdunay@anchoragea.com)>; Brick Spangler <[Spangler.B@portseattle.org](mailto:Spangler.B@portseattle.org)>  
**Cc:** Dan Berlin <[dberlin@anchoragea.com](mailto:dberlin@anchoragea.com)>; Hoffman, Erika <[Hoffman.Erika@epa.gov](mailto:Hoffman.Erika@epa.gov)>; Sloan, Jon <[Sloan.J@portseattle.org](mailto:Sloan.J@portseattle.org)>  
**Subject:** T25 Sediment Characterization - EPA comments on Tier 3 analysis

Joy,

EPA has reviewed the data from Tier 2 testing and the Tier 3 trigger table. While EPA is in agreement with all of the proposed samples for Tier 3 testing, we have the following questions and requirements regarding additional COCs and/or testing. In addition, more information is needs to be added the tables:

1. SC-03, SC-04, SC-07 and SC-08 – Add text to “SedTier3Trigger” spreadsheet explaining why no analysis of the shallower intervals is/was proposed and, where necessary, summarizing the results of the IDW testing. Since one goal of this testing is to gather nature and extent information, the Port must re-consider whether to analyze shallower intervals especially when there's a large vertical interval (>3ft) between analyzed samples. Additional information was incorporated into the Tier 2 or Tier 3 Testing Rationale.
2. SC-07 Explain why PAHs weren't analyzed in Tier 2 for the 5-6 ft interval (given that PAHs exceeded 11,000 ppb dw in the 0-1 ft interval). If there is left over archived sediment for the 5-6ft interval, PAHs must be analyzed to get a complete data set for this layer. PAHs in the 0-1 ft interval did not exceed SMS screening criteria. However; to address EPA's concern, PAHs will be tested in the 5-6ft interval as part of the Tier 3 analyses.
3. SC-09. Include PCBs in Tier 3 analysis of 3-4ft interval. There are several locations at this site where dramatic changes in contaminant concentrations with depth are seen. Given this, COCs must not be screened out for analysis based on their absence in the shallower intervals. PCBs were added to the 3-4 ft test request.
4. Samples SC-06 through SC-09 all have intervals with extremely high TOC values (10 – 22%). Add a footnote/indication to the “SedChar2019” spreadsheet clarifying that these unusually elevated TOC values reflect the presence of wood waste and other unusual occurrences of organics (“white spongy material”). A footnote was added to the samples with high TOC.

For EPAs records, EPA needs a revision to the spreadsheet addressing EPAs Comments. EPA also looks forward to discussing the data and the implications it may have on the cleanup alternative in EW as well as the T-25 Habitat project. Please let me know if you have any questions. Revised tables are attached.

Ravi

